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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/963,839 | 09/26/2001 | Haruo Hyodo | 10417-100001 | 9344 |

7590 09/12/2002

CHRIS T. MIZUMOTO
Fish & Richardson P.C.
Suite 2800
45 Rockefeller Plaza
New York, NY 10111

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| EXAMINER |
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HOANG, QUOC DINH

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| ART UNIT | PAPER NUMBER |
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2818

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,839

Applicant(s)

HYODO ET AL.

Examiner

Quoc D Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-7 without traverse in Paper No. 5 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The Information Disclosure Statement filed on 9/26/01 has been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claim 1-7 are rejected under 35 U.S.C 102(e) as anticipated over Mizuno et al., (US Patent 6,100,108).

Regarding claims 1, Mizuno et al., Figs. 1-10, and related text on col. 1-11 which discloses a semiconductor device comprising: a supporting substrate 2 made of insulating

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material (col. 4, lines 12-43 and Fig. 3); a conductive pattern 10 provided on a surface of the supporting substrate 2 (col. 4, lines 12-43 and Fig. 3); an external connecting terminal 9 provided on a back surface of the supporting substrate 2 and electrically connected to the conductive patterns 10 (col. 4, lines 12-43 and Fig. 3); a circuit element 4 14 provided on the conductive pattern 10 (col. 4, lines 12-43 and Fig. 3); and a glass plate 6 that covers the circuit element 4 14 and that forms a hollow airtight portion between the supporting substrate 2 and the glass plate 6 (col. 4, lines 12-43 and Fig. 3).

Regarding claim 2, Mizuno et al., discloses the glass plate 6 includes a transparent glass plate (col. 4, lines 36-41 and Fig. 3).

Regarding claim 3, Mizuno et al., discloses the supporting substrate 2 includes a flat supporting portion 2b-2e and a column portion 2a, and the conductive patterns 10 are provided on the flat supporting portion (col. 4, lines 36-41 and Fig. 3).

Regarding claim 4, Mizuno et al., discloses the glass plate 6 is adhered onto the column portion 2a (col. 4, lines 36-41 and Fig. 3).

Regarding claim 5, Mizuno et al., discloses a via hole 11 is provided in the supporting substrate 2, and the circuit element 4 14 and the external connecting terminals 9 are electrically connected through the via hole 11 (col. 4, lines 36-41 and Fig. 3).

Regarding claims 6-7, Mizuno et al., discloses the circuit element is formed of one of a semiconductor element 4 and a fuse element 14, wherein the fuse element 14 is formed of a bonding wire (col. 4, lines 36-41 and Fig. 3).

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc Hoang whose telephone number is (703) 306-5795. The examiner can normally be reached on Monday -Friday from 8.00 AM to 5.00 PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms., can be reached on (703) 308-4910

Quoc Hoang ^{uq}
Patent Examiner/ AU 2818


David Nelms
Supervisory Patent Examiner
Technology Center 2800